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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/533,980	03/27/2006	Aharon Arakel	SPRUS60.001APC	9604

20995 7590 12/01/2008  
KNOBBE MARTENS OLSON & BEAR LLP  
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EXAMINER
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HRUSKOCI, PETER A

ART UNIT	PAPER NUMBER
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1797

NOTIFICATION DATE	DELIVERY MODE
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12/01/2008

ELECTRONIC

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

jcartee@kmob.com  
eOAPilot@kmob.com

<b>Office Action Summary</b>	<b>Application No.</b> 10/533,980	<b>Applicant(s)</b> ARAKEL ET AL.	
	<b>Examiner</b> /Peter A. Hruskoci/	<b>Art Unit</b> 1797	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 26 September 2008.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1,2,5-19,21,22 and 24-26 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1,2,5-19,21,22 and 24-26 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All    b) ☐ Some \*    c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- |                                                                                                            |                                                                                         |
|------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)                                | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                       | 5) <input type="checkbox"/> Notice of Informal Patent Application                       |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)<br>Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____                                                |

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Claims 1, 2, 5-19, 21, 22, and 24-26 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. In claim 1 “in the event”, in claim 16 “diverted water”, in claim 19 “light”, and in claim 24 “RO” are vague and indefinite because it is unclear how these terms further limit the claims. Claims 2, 5-15, 17, 18, 21, 22, 25, and 26 depend from the above claims.

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 1, 2, 5-7, 11, 12, 14-18, and 24-26 are rejected under 35 U.S.C. 103(a) as being unpatentable over Weinberger et al. 3,350,292. Weinberger et al. disclose (see col. 3 line 64 through col. 6 line 14) a process for treatment of water substantially as claimed. The claims differ from Weinberger et al. by reciting that the water is selected from a specific group consisting of Type 1-7 water. It is submitted that the saline water treated in Weinberger et al. is considered patentably indistinguishable from the Type 1-7 water recited in the instant claims. It would have been obvious to one skilled in the art to modify the process of Weinberger et al. by treating the recited Type 1-7 water, to aid in recovering calcium carbonate and magnesium hydroxide from the water. The specific total of dissolved solids, ratios, and salinity in the water, and pH ranges, sulfate concentration, concentrate, and mother liquid portions utilized, would have been an obvious matter of process optimization to one skilled in the art, depending specific water treated and results desired, absent a sufficient showing of unexpected results.

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Claim 13 is rejected under 35 U.S.C. 103(a) as being unpatentable over Weinberger et al. 3,350,292 as above, and further in view of Jongema 5,221,528. The claim differs from Weinberger et al. by reciting that the second product recovered from the concentrated mother liquor is sodium sulfate. Jongema disclose (see col. 1 line 50 through col. 3 line 60) that it is known in the art to add calcium hydroxide to a brine to form calcium carbonate and a purified brine, to evaporate water from the purified brine to form sodium chloride and a mother liquor, and to evaporate water from the mother liquor to form sodium sulfate. It would have been obvious to one skilled in the art to modify the process of Weinberger et al. by further concentrating the mother liquor in view of the teachings of Jongema, to aid in recovering sodium sulfate from the water. The specific pH range utilized, would have been an obvious matter of process optimization to one skilled in the art, depending specific water treated and results desired, absent a sufficient showing of unexpected results.

Claims 21 and 22 are rejected under 35 U.S.C. 103(a) as being unpatentable over Weinberger et al. 3,350,292 as above, and further in view of Heath et al. 2,342,666. The claims differ from Weinberger et al. by reciting that the partially processed water is further contacted with a solution of calcium chloride to convert carbonate ions to PCC and supplementary PCC, respectively. Heath et al. disclose (see pages 1 and 2) that it is known in the art to utilize a calcium chloride solution to aid in precipitating calcium carbonate in a brine treated with a lime slurry. It would have been obvious to one skilled in the art to modify the process of Weinberger et al. by utilizing the recited calcium chloride solution in view of the teachings of Heath et al., to aid in recovering precipitated calcium carbonate from the water. The specific secondary reaction step utilized, would have been an obvious matter of process optimization to one skilled in the art,

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depending specific water treated and results desired, absent a sufficient showing of unexpected results.

Claims 8-10 and 19 would be allowable if rewritten to overcome the rejection(s) under 35 U.S.C. 112, 2nd paragraph, set forth in this Office action and to include all of the limitations of the base claim and any intervening claims.

Applicant's election with traverse of Group I, claims 1-19, 21, 22, and 24-26 in the reply filed on 9/26/08 is acknowledged. The traversal is on the grounds that the claims of Groups I and IV represent a single general inventive concept, and no restriction between these groups should be required in accordance with MPEP 1893.03(d). This is not found persuasive because restriction was required under 35 U.S.C. 121 and 372. It is submitted that the inventions of Groups I and IV do not relate to a single general inventive concept under PCT Rule 13.1 because, under PCT Rule 13.2, a special technical feature which these claims share does not define a contribution over the prior art. For example, the claims of Groups I and IV share a precipitated calcium carbonate or magnesium hydroxide as the special technical feature, which is considered to lack novelty or an inventive step in view of Tabata et al. 3,676,067 (see col. 1 line 16 through col. 2 line 40), and Weinberger et al. 3,350,292 as applied above. The requirement is still deemed proper and is therefore made final.

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to /Peter A. Hruskoci/ whose telephone number is (571) 272-1160. The examiner can normally be reached on Monday through Friday from 8:00AM-5:00PM.

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If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Duane Smith can be reached on (571) 272-1166. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Peter A. Hruskoci/  
Primary Examiner  
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11/22/08